

CLAIMS

What is claimed is:

1 1. An apparatus comprising:
2 a fork having a void near its bottom end and having a suspension axis;
3 a first trail adjustment block adapted to mate with the void of the fork, and including an
4 axle mounting hole for retaining an axle at a first position with respect to the suspension axis
5 when the first trail adjustment block is mated with the void of the fork; and
6 a second trail adjustment block adapted to mate with the void of the fork, and including
7 an axle mounting hole for retaining the axle at a second position with respect to the suspension
8 axis when the second trail adjustment block is mated with the void of the fork;
9 whereby a trail position of the axle can be altered by swapping the first and second trail
10 adjustment blocks.

1 2. The apparatus of claim 1 further comprising:
2 a third trail adjustment block adapted to mate with the void of the fork, and including an
3 axle mounting hole for retaining the axle at a third position with respect to the suspension axis
4 when the third trail adjustment block is mated with the void of the fork.

1 3. The apparatus of claim 1 wherein:
2 the void of the fork includes an upper surface and a lower surface which are parallel; and
3 the trail adjustment blocks each has an upper surface and a lower surface which are
4 parallel.

1 4. The apparatus of claim 1 wherein:
2 the trail adjustment blocks each includes a pinch split.

1 5. The apparatus of claim 1 wherein:
2 the trail adjustment blocks each includes one of a groove and a ridge; and
3 the fork includes the other of the groove and the ridge;
4 wherein the groove and the ridge are configured to provide lateral alignment of the trail
5 adjustment block and the fork.

1 6. The apparatus of claim 1 wherein:

2 the fork includes a telescoping fork including an upper fork tube and a lower fork tube,
3 and a fork lower;

4 wherein the fork lower includes the void.

1 7. The apparatus of claim 1 wherein:

2 the fork includes means for mounting a brake caliper; and

3 the apparatus further includes two brake caliper mounts, of different lengths
4 corresponding to a distance from the first position and the second position of the axle;

5 whereby the brake caliper can be moved to maintain a constant radial distance from the
6 axle, when swapping between the first and second trail adjustment blocks.

1 8. The apparatus of claim 7 wherein:

2 the first brake caliper mount comprises a first post and a second post coupled to a body
3 having a first length; and

4 the second brake caliper mount comprises a first post and a second post coupled to a body
5 having a second length.

1 9. The apparatus of claim 8 wherein:

2 the first post and the second post of each of the brake caliper mounts are substantially at
3 right angles to each other.

1 10. The apparatus of claim 9 wherein:

2 the brake caliper mounts are rotatably coupled to the fork, whereby the brake caliper can
3 be swung to a side to facilitate mounting a wheel to the axle without removing the brake caliper
4 from the fork.

1 11. A vehicle comprising:

2 a frame including a steering tube having a steering axis;

3 a pair of sliding-tube forks;

4 a pair of triple clamps rotatably coupling the forks to the steering tube;

5 an axle;

6 a wheel rotatably coupled to the axle; and
7 at least two alternate pairs of trail adjustment blocks, each pair providing a different
8 amount of trail of the wheel with respect to the steering axis;
9 wherein the forks and the trail adjustment blocks are configured to be coupled together,
10 whereby the axle is coupled to the forks by one respective pair of trail adjustment blocks at a
11 time.

1 12. The vehicle of claim 11 wherein:
2 the forks include fork lowers which are adapted to mate with the trail adjustment blocks.

1 13. The vehicle of claim 11 wherein, when the vehicle is on the ground:
2 mating surfaces of the forks and the trail adjustment blocks are substantially parallel with
3 the ground;
4 whereby swapping pairs of trail adjustment blocks does not substantially alter ride height
5 of the vehicle.

1 14. The vehicle of claim 11 wherein:
2 the forks and the trail adjustment blocks include means for axially positioning the trail
3 adjustment blocks with respect to the forks and the axle.

1 15. The vehicle of claim 11 wherein:
2 the trail adjustment blocks are pinch mounted to the axle.

1 16. The vehicle of claim 11 wherein the vehicle comprises a motorcycle.

1 17. The vehicle of claim 11 wherein the vehicle comprises a bicycle.

2 18. An apparatus comprising:
3 a fork including means for mounting a wheel assembly on an axle;
4 a brake caliper;
5 at least one pivoting caliper mount pivotably coupling the brake caliper to the fork;
6 whereby the brake caliper can be swung to a side to facilitate installation of the wheel
7 assembly to the means for mounting.

1 19. The apparatus of claim 18 wherein the caliper mount includes:

2 a body;

3 a first cylindrical post extending from the body and adapted to rotatably engage the fork;

4 a second cylindrical post extending from the body and adapted to couple to the brake
5 caliper.

1 20. The apparatus of claim 19 wherein:

2 the first and second cylindrical posts are at a substantially 90degree angle to each other.

1 21. The apparatus of claim 20 wherein:

2 the at least one pivoting caliper mount includes a pair of caliper mounts having their first
3 cylindrical posts coaxially aligned when coupled to the fork.

1 22. The apparatus of claim 18 wherein the fork comprises:

2 an upper fork tube;

3 a lower fork tube slidably coupled to the upper fork tube; and

4 a fork lower coupled to the lower fork tube and including the means for mounting.

1 23. A vehicle comprising:

2 a frame including a steering tube;

3 a front suspension coupled to the steering tube;

4 a front axle coupled to the front suspension;

5 a wheel coupled to the front axle;

6 at least one brake rotor coupled to the front wheel;

7 at least one brake caliper; and

8 means for rotatably coupling the brake caliper to the front suspension;

9 whereby the brake caliper can be pivoted aside when not engaged with its corresponding
10 brake rotor.

1 24. The vehicle of claim 23 wherein:

2 the means for rotatably coupling comprises at least one caliper mount each including,

3 a body,

4 a cylindrical first post extending from the body,
5 a cylindrical second post extending from the body at a substantially 90degree
6 angle with respect to the cylindrical first post; and
7 the front suspension includes at least one hole adapted to rotatably mate with the
8 cylindrical first post of a corresponding caliper mount.

1 25. The vehicle of claim 24 wherein:
2 the means for rotatably coupling comprises two caliper mounts; and
3 the front suspension includes two coaxial holes adapted to rotatably mate with the
4 cylindrical first posts of the two caliper mounts.

1 26. The vehicle of claim 23 wherein the vehicle comprises a motorcycle.

1 27. The vehicle of claim 23 wherein the vehicle comprises a bicycle.